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4       **DURANGO INTERAGENCY DISPATCH CENTER**  
5       **MOBILIZATION GUIDE**

6       **CHAPTER 80 – AIRCRAFT**

7       **AIRCRAFT OPERATIONS**

8       The primary Goals of the dispatch of any resource are:  
9              **SAFETY, EFFECTIVENESS, EFFICIENCY**

10      In conjunction with our goals, the following evaluation criteria must be accomplished by the dispatch  
11     system.  
12      - Rapid response.  
13      - Communications/Intelligence. Information must be accurate and timely.  
14      - Efficient use of the most effective resources.  
15      - Operational Flexibility.

18      The activation of the next higher or lower levels of the decision making process to dispatch resources  
19     should be made by common sense methods. Ultimate responsibility should be at the lowest possible level  
20     given the operational priorities.

22      Information regarding airspace management can be found in the Interagency Airspace Coordination Guide.  
23     While performing dispatch duties, it is important to keep in mind the critical factors that form effective and  
24     efficient incident response in regards to air support resources and base operations.

- 25      • Reminder: All air resources are **Initial Attack (IA) resources are subject to diversion at anytime**  
26     for higher priority incidents, regardless of whether ordered for a single drop or large incident.  
27     Orders for these resources should be based on actual current incident needs, if responding beyond  
28     pre-positioning placement.
- 29      • Response times are the most critical aspect of IA resources.
- 30      • The use of air attack and/or lead planes is critical for safe and effective support.
- 31      • **Resource Orders must be accurate and complete and given to pilots prior to a dispatch.**

33      Tactical aircraft dispatch information, at a minimum, must include: VOR's (Base or Omni, bearing,  
34     distance); latitude / longitude (**use degrees decimal minutes**); other aircraft or hazards in the area and  
35     being dispatched to the area; frequencies - air to air and air to ground and their associated contact names,  
36     Reload Base (as applicable).

38       **PRIORITIZING INCIDENTS**

39      All requests will be processed based on the following:

- 40      • In accordance with standard fire priority criteria (See chapter 10)
- 41      • Requests will normally be filled in the order received, new starts normally take priority
- 42      • When competition for resources occurs the base/center will allocate resources based on standard fire  
43     criteria or based on priorities set by RMC (Coordinator, MAC, and RMCG).
- 44      • During times of high competition for resources, the need for continual communication and feedback is  
45     essential. RMC must be apprised of all new orders and activity. During times of extreme activity, an  
46     area command may be set up in the area of concern for the purpose of prioritization and guidance.
- 47      • Adjoining Geographical Area units will abide by the same ordering procedures and restrictions as RMA  
48     units for available RMA resources.
- 49      •
- 50      • **We can only ensure these goals by continuing to use our common sense, provide good**  
51     **communication and remaining flexible for each situation.**

53       **DRC DISPATCH PROCEDURES FOR AIR SUPPORT RESOURCES:**

- 54      1. Initial Attack Air Support requests are made to DRC.
- 55      2. Units who DRC may order direct for IA air resources are Pueblo, Montrose, Moab, and Taos Zone  
56     dispatches.
- 57      3. If neighboring dispatches are unable to fill the request, the DRC will place the request to RMACC.

- 1           4. Once order is filled, Incident Support with Air resources will be carried out of the Durango Airtanker  
2           Base.  
3           5. DATB will work in conjunction with DRC and outside requesting dispatch centers to operate as  
4           efficiently as possible to support incident needs.

6           Between the hours of 2200 and 0600 charter pilots shall not be called/dispatched. Orders for charter  
7           aircraft should not be placed with vendors between these hours, unless they have a separate dispatcher  
8           available. Operators should be queried to insure duty limitations are being met.

9           **NO MISSION IS WORTH SACRIFICING SAFETY**

10          Aircraft assigned will become the receiving area's resource until released.

11          The following terminology will be used when ordering aircraft:

- 12           • Knots (kts) will be the standard term used to reference airspeed.  
13           • VOR's (Direction-magnetic headings) will be used to reference direction.  
14           • Latitude and longitude must be provided in degrees decimal minutes.  
15           • Aircraft registration numbers will be used when referencing helicopters, leadplanes and air attack  
16           aircraft. Airtankers are referenced by the airtanker number; e.g. T-12.

17          The following selection factors will be used when ordering aircraft:

- 18           • Heavy Airtankers, type 1 or 2: Loaded or empty (as a rule - two hour maximum flight when  
19           loaded)  
20           • Timeliness.  
21           • Cost effectiveness.  
22           • Performance specifications for density altitude/high altitude operations.  
23           • Carded for interagency use.  
24           • Special applications such as special-use flights, etc.  
25           • Single Engine Air Tankers (SEAT), type 3 and 4 airtankers.

26          **FLIGHT MANAGEMENT PROCEDURES**

27           **Pilot Regulation Reminders:**

- 28           • Cannot exceed 8 hours flight time/day  
29           • Allowed to be on duty 14 hours a day  
30           • Must have 10 hours uninterrupted rest  
31           (30 min. drive time to/from work not considered duty time).  
32           • Cannot exceed 42 duty hours in 6 consecutive days  
33           • If 36 or more flight hours in 6 consecutive days, pilot must take a day off.  
34           • Days off -1 day in 7 days OR 2 days in 14 days (mandatory)  
35           • Sterile Cockpit – Aircraft will not be contacted by dispatch within 5 minutes of take-off or  
36           landing at an airport or helibase, etc.

37          **Automated Flight Following (AFF)** will be used whenever available.

38          When local agency flight planning is used and aircraft is flying a local mission for a specific purpose,  
39          the dispatcher shall be responsible for flight following the aircraft with a required **30 minute**  
40          **maximum** check-in during aircraft flight time.

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4 A 15 minute check-in interval is recommended for air tankers, helicopters, and recon operations.  
5 The following information should be provided and logged for Flight Following:  
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- 7 1. Time of check in.
- 8 2. Current position of aircraft (latitude/longitude, VOR's, geographical landmarks, etc.)
- 9 3. Direction of travel.
- 10 4. Any changes in flight plan.

11 Before any flight takes place the dispatcher should have a full understanding of the purpose of the  
12 mission, destination, duration, identify passengers/cargo, check-in intervals, communication  
13 networks, and emergency procedures in the event of an incident. Radio communications must be  
14 maintained with all aircraft which the dispatcher has agreed to flight follow. This must be maintained  
15 throughout the duration of the flight or the flight will be immediately terminated and the dispatch office  
16 contacted.

17 **Point to Point Flight Following**

18 The sending dispatch center has the ultimate responsibility for flight following. This responsibility  
19 may be handed off to the area coordination center. There should not be several offices open for the  
20 sole purpose of waiting on an aircraft. Within the RMA, the sending center is responsible for the  
21 aircraft flight following within their area of influence, then handing off the responsibility to RMC once it  
22 crosses dispatch center jurisdictional or area boundaries.

23 If a problem occurs enroute and the originating office is contacted by the pilot or COP, a phone  
24 number and contact point to get back to them with further instructions should be obtained. All pilots  
25 need to check-in with the appropriate originating and assigned office upon arrival at the flight  
26 destination.

27 **Aircraft Accident/Incident Reporting**

28 Personnel shall report immediately all aircraft accidents/incidents to appropriate Agency/Department  
29 officials. Safecoms are to be submitted through the appropriate channels. See the Safecom Website  
30 <http://www.safecom.gov>. A hardcopy is in Chapter 28 forms.

31 **CHAPTER 90 IS DESIGNATED FOR LOCAL UNIT EMERGENCY PROCEDURES**

32 • **Aerial Supervision**

33 • **LEADPLANE AND ASM1**

34 A lead plane, Air Attack, ASM1, or Airtanker Coordinator is required to accompany the following  
35 missions:

- 36 • Two or more airtankers over the fire at the same time or at staggered intervals of 15  
37 minutes or less.
- 38 • Any mission where the airtanker pilot is not Initial Attack rated.
- 39 • The fire is in a congested area.
- 40 • Whenever any airtanker is operating over an incident within 30 minutes after official sunset  
41 at the nearest air tanker base.
- 42 • Whenever any airtanker is operating over an incident within 30 minutes before official  
43 sunrise at the nearest air tanker base.

44 If a lead plane or ASM1 is not available, a qualified Air Tactical Group Supervisor may be used until  
45 a lead plane arrives, as long as the air tanker Pilot in Command (PIC) is Initial Attack (IA) rated. Non-  
46 IA rated PIC's require a lead plane.

47 **AIR TACTICAL AND RECONNAISSANCE AIRCRAFT**

48 Air tactical and reconnaissance aircraft are on aircraft rental agreements and exclusive use  
49 contracts solicited and inspected by the Office of Aircraft Services and other federal agencies.  
50 They are available for interagency use and will be requested through established ordering  
51 channels. Ordering offices may request that aircraft come with specific avionics equipment (see

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Chapter 70).

**Aerial Supervision Requirements - Rocky Mountain Area**

Situation	Lead Plane/ ATCO	Ref.	ATGS	Ref.
Airtanker pilot is not initial attack rated	Required	1		
MAFFS	Required	1		
Retardant drops in congested areas	Required	1,3		
Non – IA rated SEAT pilot operating with any other tactical aircraft	Required if ATGS is not on scene	1	Required if Lead Plane/ATCO is not on scene	1
IA rated SEAT pilot operating with three or more tactical aircraft	Required if ATGS is not on scene	1	Required if Lead Plane/ATCO is not on scene	1
Foreign Government airtankers	Required if ATGS is not on scene	1	Required if Lead Plane/ATCO is not on scene	1
Retardant drops conducted earlier than 30 minutes prior to sunrise or later than 30 minutes after sunset	Required if ATGS is not on scene	1,2	Required if Lead Plane/ATCO is not on scene	1,2
Four or more air tankers assigned to an incident	Must be ordered	1	Must be ordered	1
Two or more helicopters with two or more airtankers over an incident	Must be ordered	1	Must be ordered	1
Marginal weather, poor visibility or turbulence associated with use of air tankers over an incident	Must be ordered	1	Must be ordered	1
Two or more airtankers over an incident	Must be ordered	1	Must be ordered if Lead Plane/ATCO is not available	4
When requested by airtanker pilot or ATGS	Must be ordered	1		
Presence of smokejumper or paracargo aircraft with two or more air tankers over an incident	Must be ordered	1	Must be ordered if Lead Plane/ATCO is not available	1,5
Incident has two or more branches			Must be ordered	1,5

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NOTE: BLM Aerial Supervision Modules may act as either a Lead Plane or ATGS depending on incident requirements. No reference is made to USFS Aerial Supervision Modules pending development of National direction.

**References: (1-5 from Aerial Supervision Table)**

- a. Interagency Lead Plane Operations Guide (ILOG), the Interagency Air Tactical Group Supervisor's Guide and the Aerial Supervision Module Operations Guide (ASMOG)
- b. Requires determination by either the ATGS or Lead Plane that visibility and safety factors are suitable for retardant operations and dispatch has been notified of this determination.
- c. Required under Exemption 392 from 14 CFR Part 91.119, FSM 5714.11 for USFS jurisdiction. Incidents under BLM jurisdiction require a lead plane to be on order.
- d. FSM 5716.32
- e. Both the ILOG and ATGS Guide reference ordering an ATGS only for these missions.

FSM 5716.32 classifies these missions as complex. An ASM, Lead Plane or HLCO should be ordered as appropriate in addition to the ATGS.

1           **DRC Basic Aviation SOP's and Recon Flights**

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- 3       • **ALL** operating aircraft will monitor Air Guard 168.625.
- 4
- 5       • Flight Following within the DRC area should be done on designated unit frequencies and not on  
6       National Flight Follow. Use National Flight Follow only if unable to make contact with DRC on unit  
7       frequencies.
- 8
- 9       • DRC area aircraft will not enter TFR areas without prior contact and authorization from the incidents  
10      Air Support unit.
- 11
- 12      • DRC will continuously update all airborne aviation resources, as relevant, with additional information  
13      about new starts, incidents, ground contacts, incoming aviation resources, and weather.
- 14
- 15      • DRC will notify all aviation resources prior to take-off or entering the DRC area of all pertinent TFR's  
16      and air to air and air to ground frequencies being used.
- 17
- 18      • South of latitude **37 N** is in New Mexico. West of Longitude **109.03 W** is Utah
- 19
- 20     • DRC aircraft will not cross the CO/NM state line without first contacting DRC who will contact the  
21      appropriate NM dispatch center to confirm that they have no other air resources in the area.
- 22       • Be aware, the DRC area does have an active Civil Air Patrol. CAP is normally active in the early  
23      morning hours, and does head toward smokes.
- 24
- 25       • *All of the DRC units' repeater frequencies are programmed into the dispatch consoles.*
- 26
- 27       • *DRC does not have air to air, air to ground or work channels in dispatch consoles.*
- 28
- 29
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31           **RECONS**

32           DRC will contact the unit FMO/AFMO's (FDO) to inquire as to whether they want a recon flight for the  
33      following day(s).

34           On the day of the flight DRC will:

- 35
- 36       • Contact the unit FDO's to get an update on any specific areas they would like the observer to look  
37      at beyond a general recon of their unit.
- 38
- 39       • Meet with or contact the observer and update them on the prior days, current and expected fire and  
40      weather situation; this will be verbally and visually (if possible). The observer will be briefed on:  
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- 42           ○ Weather (a lightning map of current and previous days strike history (faxed or handed))  
43           ○ Other air resources working within the area  
44           ○ A list of all local incidents, their status, location, and ground contacts  
45           ○ All frequencies and TFR's within the DRC area and their locations  
46           ○ A list of available aerial resources (air tankers, lead planes, air attacks, helicopters,  
47      smokejumpers) within the DRC and RMA areas.
- 48

1      **The aerial observer will:**

- 2      • Flight follow with DRC using standard national flight following requirements: 15 min. check-ins,  
3      course change, etc
- 4      • Prior to take-off, phone DRC to notify them you are about to take off and a general flight plan. DRC  
5      will notify observer of any last minute changes.
- 6      • As soon after takeoff as possible, confirm radio contact with DRC, normally done on Forest Primary  
7      (Smelter) notify DRC of number of souls on board (SOB), number of hours of fuel on board (FOB), a  
8      general flight plan and your heading.
- 9      • Check-in will consist of:
- 10        o If over an incident with local flight follow occurring – 30 minute routine check-in for updates and  
11        status check. (i.e., “Ops normal”)
- 12        o Local flight following - the ground units must confirm positive contact direct with DRC
- 13        o If moving - 15 min routine check-in, current lat/ long, heading (degrees), geographic feature  
14        (e.g., over Mesa Verde NP), general flight plan (going to head to the south end of Sleeping Ute).
- 15        • Recons will operate on the frequency used by the unit they are observing (i.e., UMA, SUA, Dolores  
16        (forest primary), etc). Upon entering a unit’s area, observers will make contact with the unit FDO.
- 17        • Over incidents, observers will make ground contact with the IC. (*Normally on the DRC area Primary*  
18        *Air-Ground frequency.*)
- 19        • Prior to ending a recon, notify DRC so any new requests can be made of the aircraft.
- 20        • Just prior to landing, notify DRC that you are at “--- airport about to land”.
- 21        • Once safely on the ground, notify DRC via radio or by land line.

22      **Smoke / Incident Response**

- 23      • Smokes – notify DRC via the radio on the applicable unit’s frequency that you have spotted a  
24      smoke. Provide DRC with a fire size-up (see Initial Response Action form). If possible brief the unit  
25      FDO directly as requested. DRC will confirm/acknowledge contact with the unit FDO or make  
26      appropriate decisions as necessary.
- 27      • Incidents – notify DRC of location and contact with ground forces to see if you can be of assistance.

28      **Call Signs**

29      Standard call signs for recon and Air Attack working within the DRC area are:

- 30      • Recons – Durango Recon (if we have 2 they would be, DR East and DR West)
- 31      • Air Attack - Durango Air Attack or “*Incident Name*” Air Attack

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2     **Large Transports**  
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8     **Passenger/Cargo Manifest**  
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11       This form shall be used in conjunction with all large transport operations. FAR 121 requires a  
12       minimum of two copies be furnished to the operator; the sending unit should retain one copy as a  
13       permanent record. NICC requires that personnel weights be separated from gear/cargo weights.  
14  
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16       **All crews shall be manifested and a copy sent to  
17                   RMC within 2 hours of their departure.**  
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19

20     **Helicopter-Call When Needed (CWN)**  
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- 23       • Dispatch centers may activate and request from approved commercial FAR 135 operators CWN  
24       helicopters within their area of influence.
- 25       • Ordering unit must specify exact resource configuration (i.e., fuel truck, bucket, etc.)
- 26       • FAA assigned tail number will be used by Exclusive Use and CWN helicopters as call sign.
- 27       • When using CWN helicopters, module personnel and aircraft shall be brought together at a pre-  
28       designated place **PRIOR** to arrival at the incident.

29     **Ordering Procedures**  
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32       LIGHT (T3) helicopters, within the RMA, may be ordered by dispatch centers. A list of CWN Type 3  
33       helicopters is available in Chapter 80 of this guide. For any assignment, a Manager plus a minimum of 2  
34       crewpersons will be ordered and assigned to light (Type 3) helicopters.  
35

36       MEDIUM AND HEAVY the Medium (T2) and Heavy (T1) CWN Helicopter Program is administered by the  
37       National Interagency Fire Center. All ordering of medium and heavy helicopters will be done through  
38       normal dispatch channels to RMC.  
39

40       CALL WHEN NEEDED (CWN) helicopters will be managed by a qualified module.  
41  
42

43       **HELICOPTERS**  
44

45       TYPE 3 & 4	46       :	47       Manager and two crewpersons
48       TYPE 2 STANDARD:		49       Manager and three crewpersons
50       TYPE 1 STANDARD:		51       Manager and four crewpersons
52       TYPE 1 LIMITED:		53       Manager only
54       TYPE 2 LIMITED:		55       Manager only

56       Units requesting modules will do so by an Overhead (O) request for each position. Module requests  
57       should be coordinated with anticipated helicopter delivery. Ordering a module for a CWN helicopter is not  
58       automatic; the ordering office should attempt to fill internally.  
59

- 60       •
- 61       • **Non Fire-CWN Projects**

62       **PROJECT WORK**  
63

64       A minimum of a helicopter manager will be assigned to a helicopter for any kind of project work.  
65

66       **ADMINISTRATIVE FLIGHTS**  
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68       On any non-fire, administrative flight there will be, as a minimum, a qualified helispot manager on site to  
69       ensure that helicopter load calculations are completed and accurate, ensure passengers are briefed and  
70       that pilot and helicopter are properly carded for specific agency use.  
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72     **Exclusive Use Contract Helicopters**  
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75       DRC has one Type 2 exclusive use helicopter assigned to the San Juan NF, and one Type 3 exclusive  
76       use helicopter assigned to Mesa Verde NP and one Type 3 exclusive use helicopter assigned to Ute  
77       Mountain Ute Agency.  
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79       (See DMG Ch 80 for detailed information.)  
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**Airtanker Dispatch**

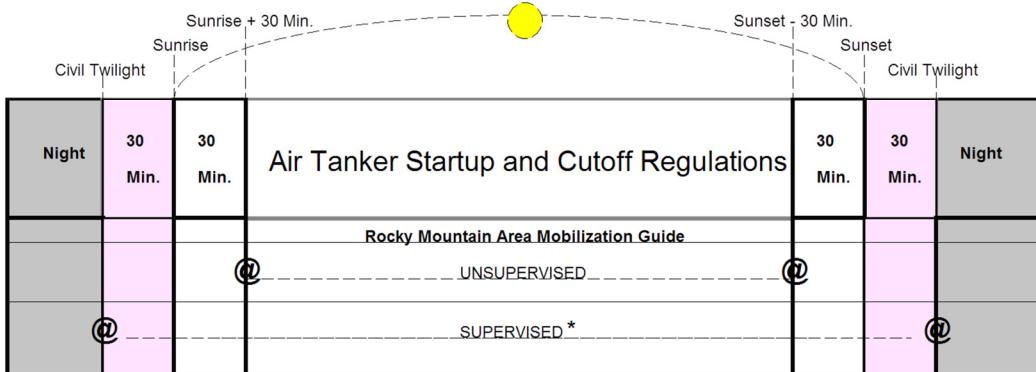
8 Area Coordination/Dispatch Centers shall retain control of air tankers during incidents and have authority  
9 to divert airtanker(s) to initial attack situations based on threat to life and property or higher resource  
10 values at risk. Close coordination must be maintained between the Dispatch Center and all affected  
11 incidents.

12 The Durango Airtanker Base (DTB) is located at the La Plata County Airport (DRO). Orders will be  
13 placed through DRC to the DTB.

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**Airtanker Dispatch Limitations - Startup/Cutoff Times**

17 To reduce the hazards of airtanker retardant drops in the early morning and late evening hours, comply  
18 with the limitations on times when airtankers may drop retardant on fires. The following limitations apply  
19 to the time the aircraft arrives over the fire to conduct the drop, not to the time the aircraft is dispatched  
20 from a base and conforms to the information contained in the Interagency Airtanker Base Guide.

- 21
1. **Limitations on Startup and Cutoff Times.** Normally, airtankers shall be dispatched to arrive over a  
22 fire not earlier than 30 minutes after official sunrise and not later than 30 minutes before official  
23 sunset. These times are termed the "startup" and "cutoff" times respectively.
  2. **Exceptions.** With a qualified Air Tactical Group Supervisor or Airtanker Coordinator, Airtankers may  
24 be dispatched to arrive over a fire as early as 30 minutes prior to official sunrise and as late as 30  
25 minutes after official sunset provided:
    - a. ATGS or ATCO Is on scene;
    - b. It has determined that visibility and other safety factors are suitable for dropping retardant; and
    - c. Notification to the appropriate dispatcher of this determination.
  3. **Determination of Official Sunrise, Startup, Cutoff, and Sunset Times.** Each airtanker base and  
31 dispatch office shall have tables showing the official sunrise, startup, cutoff, and sunset times at  
32 those locations.
  4. **Determinations for Airtanker Dispatch.** For airtanker dispatch, use the official sunrise, startup, cutoff  
33 and sunset times of the airtanker base nearest the fire and comply with the limitations in the  
34 preceding paragraphs 1 and 2.



@ = Arrival Over The Fire (No earlier in the morning or later than in the evening)

\* = SUPERVISED (Defined as Air Tanker Coordinator or Air Tactical Group Supervisor)

Note: Sunrise and Sunset are determined by the Official Sunrise and Sunset Tables of the nearest reloid base.

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2     **Single Engine Airtankers (SEATS)**  
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- 4     • Colorado State Forest Service and the BIA-JIA have SEAT's on contract. Requests are made  
5       through normal dispatch channels.  
6     • For general guidelines about SEATS see the current SEAT Operations Guide.  
7     • Requests for OAS/USFS approved SEAT's will be through normal dispatch channels.  
8     • SEATS can be utilized for initial attack.  
9     • The use of SEATS on USFS incidents may supplement, but not substitute for, planned  
10      coverage by USFS and cooperator multi-engine airtankers.  
11     • Due to the limited nature of SEAT operations, flights beyond 50 n.m. radius from the  
12      support facility may not be practical.

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14     **Temporary Flight Restrictions (TFR) (FAR 91.137)**  
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16     Temporary flight restrictions are issued under paragraph a(2) of FAR paragraph 91.137. In part this  
17     paragraph requires a condition that the aircraft carrying news media to not only file a FAA flight plan but  
18     limits their operation to above altitudes used by disaster relief aircraft, unless otherwise authorized by  
19     the official in charge of on scene emergency response activities.

20  
21     All requests for TFR's (FAR 91.137) shall be placed through dispatch centers to RMC who will contact  
22     FAA. (Use FAA Air Space Restriction Form) dispatch centers will assure that the 91.137 are cancelled  
23     through RMC, as soon as it is no longer required.

24  
25     Normal TFR standards are 5 mile radius and 2000 feet Mean Sea Level (MSL) from the highest point  
26     within the incident (adjust according to need).

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28     **Local NOTAMS**  
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31     The FAA will issue a Notice to Airmen (NOTAM) designating an area within which temporary flight  
32     restrictions apply and specifying the hazard or condition requiring their imposition, whenever they  
33     determine it is necessary in order to provide a safe environment for the operation of disaster relief  
34     aircraft.

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36     **Procedures for Requesting Local NOTAM's**  
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38     When conducting prescribed (Rx) burns where aircraft are planned to be utilized, a LOCAL NOTAM  
39     (not a TFR) should be requested (also check MTR's in the Rx burn area). See RMG for more details.

40  
41     **Entry into Temporary Flight Restrictions and Local NOTAMS**  
42     (See the Interagency Airspace Guide for additional information.)

- 43     • DRC will be contacted for permission requested to fly over the fire.  
44     • Dispatch will acquire the aircraft type, tail number and purpose of requested entry.  
45     • Dispatch will contact the incident to coordinate times, frequencies and contacts for aircraft  
46       entry into the airspace.  
47     • Actual permission will be granted / denied by the ATGS, ATCO or AOBD only.

48  
49     **Military Training Routes and Special Use Airspace**  
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52     It is DRC's responsibility to notify the Military of any aircraft activity, TFR's that have been granted, or  
53     local NOTAMS that have been issued, for our operations. The local unit must contact the scheduling  
54     authority for any MTR's that are over the operations.

1 **AIRCRAFT**2 **RMA USFS OWNED AIRCRAFT**3 **USFS Aircraft Costs**

Aircraft	Call Sign	Flt Rate/Hour	F.O.R./Day	Speed
Cessna 206	N126Z			130 Kts/Hr.

6 \* If used more than 30 days. Rates are subject to change.

7 Fixed Operating Rate (FOR.) is charged for all non-Forest Service Administrative flights. All FOR  
8 charges are on a whole day basis unless they are split among multiple users on that day. Pilot  
9 overtime will be charged to the customer's job code if the duration of the pilot's normal duty day is  
10 exceeded due to customer's scheduling.11 **USFS Aircraft Use & Capabilities**

	C-206	
Use	Recon, Transport, Photo, Air Attack	
Fuel Type	Avgas	
Range (w/reserve)	3.5 Hours	
Max. Take-off Weight	3,600	
Runway	Hard surface 2,000 ft. Min.	
Passengers	4-5	
Baggage	120 lbs	
Ground Power Unit (less than 500/100 AMPs)	Not required	

12 **AIRBORNE THERMAL INFRARED FIRE MAPPING AND DETECTION (Refer to NMG 81.1.1)**

13 An infrared flight service can be ordered through the NICC using an Infrared Scanner Request form.

14 **CWN OWNER/OPERATOR LISTING**

15 See the Aviation website for additional USFS/DOI aircraft vendor listings.

16 <http://www.aviation.fs.fed.us/carding/index.asp> and the National Business Center's (NBC) Aviation  
17 Management. The source list can be found on the internet at: <http://amd.nbc.gov/>

VENDOR	LOCATION	TELEPHONE	FAX
Century Aviation	Montrose, CO	(970) 249-2013	(970) 249-2412
Gregg Flying Service	Durango, CO	(970) 247-4632	(970) 247-4676
Houston Air, Inc. (Air Attack)	266 Cottonwood Dr Evergreen CO 80439	(719) 237-8527 (303) 670-0207	(303) 670-6311

VENDOR	AIRCRAFT	PAX	
Century Aviation - MTJ	Citation-2	6	
Gregg Flying Service- DRO	CE 206 – N8482Q CE185 – N96475	4 3	
Houston Air, Inc. – COS (Air Attack ships) Wanda Allison 828-342- 8847	AeroCmdr 500B – 500FT (TC) AeroCmdr 500B – 93AA (TC) AeroCmdr 500B – 112AA AeroCmdr – N101AA Baron BE55 – 4458S (TC/AC/pressurized) Baron BE55 – 1564L(TC)	6 6 6 6 6 6	

21 **TC = Turbo Charged**22 **See the DRC Aircraft book for current and detailed vendor, aircraft, and rate information.**

1      **LEAD PLANES/TACTICAL AIRCRAFT**

2      **USFS Lead planes (Refer to NMG 82.1)**

3      R2 lead plane information is not available yet, and will be an amendment to this section when available.

4      **Aerial Supervision Module (Refer to NMG 82.2)**

5      **Aerial Supervision Requirements - Rocky Mountain Area**

Situation	Lead Plane/ ATCO	Ref	ATGS	Ref
Airtanker pilot is not initial attack rated	Required	1		
MAFFS	Required	1		
Retardant drops in congested areas	Required	1,3		
Non – IA rated SEAT pilot operating with any other tactical aircraft	Required if ATGS is not on scene	1	Required if Lead Plane/ATCO is not on scene	1
IA rated SEAT pilot operating with three or more tactical aircraft	Required if ATGS is not on scene	1	Required if Lead Plane/ATCO is not on scene	1
Foreign Government airtankers	Required if ATGS is not on scene	1	Required if Lead Plane/ATCO is not on scene	1
Retardant drops conducted earlier than 30 minutes prior to sunrise or later than 30 minutes after sunset	Required if ATGS is not on scene	1,2	Required if Lead Plane/ATCO is not on scene	1,2
Four or more air tankers assigned to an incident	Must be ordered	1	Must be ordered	1
Two or more helicopters with two or more airtankers over an incident	Must be ordered	1	Must be ordered	1
Marginal weather, poor visibility or turbulence associated with use of air tankers over an incident	Must be ordered	1	Must be ordered	1
Two or more airtankers over an incident	Must be ordered	1	Must be ordered if Lead Plane/ATCO is not available	4
When requested by airtanker pilot or ATGS	Must be ordered	1		
Presence of smokejumper or paracargo aircraft with two or more air tankers over an incident	Must be ordered	1	Must be ordered if Lead Plane/ATCO is not available	1,5
Incident has two or more branches			Must be ordered	1,5

8      NOTE: BLM Aerial Supervision Modules may act as either a Lead Plane or ATGS depending on incident requirements. No reference is made to USFS Aerial Supervision Modules pending development of National direction.

9      1. Interagency Lead Plane Operations Guide and Interagency Air Tactical Operations Guide

10     2. Requires determination by either the ATGS or Lead Plane that visibility and safety factors are suitable for retardant operations and dispatch has been notified of this determination.

11     3. Required under Exemption 392 from 14 CFR Part 91.119, FSM 5714.11 for USFS jurisdiction.  
12       Incidents under BLM jurisdiction require a lead plane to be on order.

13     4. FSM 5716.32

14     5. Both the IHOG and ATGS Guide reference ordering an ATGS only for these missions. FSM 5716.32  
15       classifies these missions as complex. An ATCO and/or HLCO should be ordered as appropriate in addition to the ATGS.

1 AIR TACTICAL AVIONICS  
2

3 **DRC has 1 - Type 1 Air Tactical Avionics Kit, see chapter 76 for details.**  
4

5

Required Equipment	Type 1	Type 2	Type 3	Type 4
Aeronautical VHF-AM radio transceivers	2 each	2 each	2 each	2 each
Aeronautical VHF-FM radio transceivers	2 each	1 each	1 each	
Panel Mounted GPS	2 each	1 each		
Handheld GPS			1 each	1 each
Separate audio control systems for pilot and ATGS	X	X	X	
Audio/mic jacks with PTT capability in a rear seat connected to co-pilot/ATGS's audio control system	X	X	X	
Intercommunication System	X	X	X	
Plug for auxiliary VHF-FM portable radio or one additional VHF-FM transceiver	X	X		
Accessory Power Source				X
Portable Air Attack Kit				X

6 ALL TYPES WILL INCLUDE:  
7

- 8  
9 1. A second aeronautical VHF-AM radio transceiver  
10 2. A transponder, altitude encoder and static system  
11  
12  
13  
14  
15  
16

17 SMOKEJUMPER AIRCRAFT  
18

19 **To keep Smokejumper aircraft you must place a separate aircraft request**  
20

1 **FEDERAL AIRTANKERS (NMG 83)**  
2 The primary mission of federally contracted large fixed-wing airtankers is for initial attack operations.  
3  
4 There will be no assigned bases. Administrative base management personnel and scheduled pilot days  
5 off will be determined after contract award.  
6  
7 **The following chart shows approximate 2011 Type 1 Airtanker information for calculating**  
8 **purposes only. See Airtanker Contracts/schedule for exact information.**

TYPE	P3	P2V
FLIGHT RATE		
CRUISE SPEED	230 Kts/Hr	230 Kts/Hr
FUEL TYPE	Jet Fuel	Jet Fuel
AVAILABILITY (9 hr day)		
EXTENDED STAND BY		
LOAD CAPACITY	2,500 Gallons; 23,000 lbs	2,500 Gallons; 23,000 lbs

10 **CO Single Engine Air Tankers (SEATS)**  
11  
12  
13 1. The State of Colorado will be hosting SEATs for use primarily within the state of Colorado.  
14 If the SEAT's are utilized outside CO state borders it must return to a base within CO at night.  
15  
16

**CONTRACT SEATS**

Location		Buena Vista SEAT Base (AEG)
FAA#	N4169C T880	N4219M T879
AGENCY/UNIT	COS	COS
MAKE/MODEL	Air Tractor/AT-802	Air Tractor/AT-802
TYPE	SEAT (TY3)	SEAT (TY3)
VENDOR	Queen Bee Air Specialties, Inc	Queen Bee Air Specialties, Inc
COR	Sergio Lopes – OFF 970-491-8437 C 970-222-8657	Sergio Lopes – Off: 970-491-8437 C 970-222-8657
Contract Period	120 Days	120 Days
Days Off	7 day coverage	7 day coverage
Cruise Speed	Loaded: 104-109 kts Unloaded: 145 kts	Loaded: 104-109 kts Unloaded: 145 kts
Fuel Type	Jet A	Jet A
Flight Rate		
Support Vehicle	None	None
SEAT Manager	Clinton Bellingar C 970-219-7649 Charlie Miller Pilot C 208-520-7075	Clinton Bellingar (C) 970-219-7649 Jim Mullilns Pilot (C) 970-910-2730
Load Capacity	800 gallons	800 gallons

## 1 HELICOPTERS

## 2

### 3 RMA Helicopter Ordering Guide Help Sheet (2004 Hank Dominguez - RMA HOS)

### 4

5 Type = Type of Helicopter by ICS Type I, II or III (1, 2, 3 on spreadsheet).

6 Make/Model – self explanatory.

7 HOGE (Hover-Out-of-Ground-Effect) @ 8000' = the average payload in pounds that the model helicopter  
8 can carry at 8000' elevation with a temperature of 25 degrees Celsius (77 degrees Fahrenheit).

9 Passenger Capability @ 8000' = an average number of passengers the model ship can carry at 8000'  
10 elevation, out of ground effect.

11 Module needed Standard = the manager and crew needed as a module if the ship is a standard category  
12 helicopter.

13 Module needed Restricted = only a manager, no crewpersons, required on all restricted category  
14 helicopters.

15 Bucket gallons @ 8000' = the average number of gallons the model helicopter can carry at 8000' elevation.

16 The chart gives a good representation of helicopter model capabilities, these are averages and not exact.  
17 The two red lines show a break when going to a different type helicopter might be more effective  
18 depending on the elevation. For example, if the fire is at 8000' on a 25 degree C day, a B-205-A-1++  
19 would be more effective than the S-61N. The B-205-A-1++ can carry an average payload of 2196  
20 pounds, and 244 gallons of water. This is more than the S-61N can carry with an average 1899 pounds,  
21 and 183 gallons of water.

22 The chart titled Helicopter Ordering Guide 8000 is sorted by performance of type- highest to lowest given  
23 the altitude of 8000' and a temperature of 25 degrees C (Celsius), (77 degrees Fahrenheit). It gives a  
24 quick view of what models helicopter would give good performance.

## 25 DRC CONTRACT HELICOPTERS

## 26

27 **DRC Contract Helicopters**

LOCATION	MESA VERDE	UTE MTN	DURANGO
Agency/Unit:	<b>NPS/MVP</b>	<b>BIA/UMA</b>	<b>FS/SJF</b>
Make:	<b>Bell</b>	<b>Astar B3</b>	<b>Bell</b>
Model:	<b>Bell 206LIV (TY3)</b>	<b>AS350B-3 (TY3)</b>	<b>Super 205 (TY 2)</b>
<b>FAA#:</b>	<b>N722LM</b>	<b>N127DE</b>	<b>N28HX</b>
Cruise Speed:	120 kts/hr	130 kts/hr	90 kts/hr
Pax Seats:	6	5	9
<b>Vendor</b>	<b>Classic Helicopters</b>	<b>Mountain Air Helicopters</b>	<b>Helicopter Express</b>
<b>COAR:</b>	<b>Mike Spink</b>	<b>Colton Herrera</b>	<b>Dennis Fogel</b>
Contract Period:	5/15 – 9/11	5/22 - 8/29	5/15/2010 (120 days)
Flight Rate:			
Availability:			
Extended Avail.(Pilot)			
Extended Avail: (Mech)			
Fuel Truck Mileage:			
Fuel Type:	Jet A	Jet A	Jet A
Special Missions:	Aerial Ignition (PRIMO only)	Aerial Ignition (PRIMO only)	

1 DRC CWN HELICOPTERS  
2  
3  
4

Heliwest Int'l Helicopters 1671 6450 RD Montrose CO 81401 PO BOX 355 Montrose CO 81402	Phone: 970-240-4140 Fax: 970-240-3240	Cell: 970-640-0119 Ed Cell: 970-702-408-6555 Scott
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CARDED PILOTS	HOME BASE	PROJECT/ HOURLY FLIGHT RATE 1 DAY	FIRE DAILY AVAILABILITY	FIRE HOURLY FLIGHT RATE	MODELS
<b>Fire Carded:</b> Ed Tracey Glenn Camus Scott Standish	Montrose, CO	AS 350B2 (3 Hr min)	AS 350B2	AS 350B2	AS 350B2 (N35HQ) AS 350B2 (N215LA)

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6  
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9 **MILITARY AND NATIONAL GUARD HELICOPTERS**

10 Colorado National Guard is located at the Buckley Air National Guard Base in Aurora, Colorado. Their mission  
11 is limited to Emergency Life Saving Missions and/or Wildland Fire Fighting Activities as specified in the Colorado  
12 Interagency Cooperative Fire Management Agreement. All orders must be placed through the Rocky Mountain  
13 Coordination Center.

## 1 AIRCRAFT CAPABILITIES

Type	Common Name	Make/ Model	Average HOGE Payload @ 8000 @ 25-C	Passenger Capability @ 8000	Module Needed Standard	Module Needed Restricted	Bucket Gallons @ 8000
1	Chinook	BV-234	14,145	N/A		Mgr. Only	1640
1	Sky Crane	S-64-E	8,883	N/A		Mgr. Only	1014
1	Sky Crane	CH-54A	7,698	N/A		Mgr. Only	880
1	Sky Crane	CH-54B	6,912	N/A		Mgr. Only	785
1		S-61V	6,880	N/A		Mgr. Only	783
1	Fire Hawk	S-70	5,696	N/A		Mgr. Only	649
1		KMAX	4,614	N/A		Mgr. Only	513
1	Puma	AS-330-J	3,657	18	Manager & 4	Mgr. Only	395
1		S-61R	3,631	N/A		Mgr. Only	392
1	Super Puma	AS-332-L	3,415	17	Manager & 4	Mgr. Only	250
1	Vertol	BV-107-II	3,325	N/A		Mgr. Only	353
1	Vertol	KV-107-II	3231	N/A		Mgr. Only	352
1		S-61A	3,222	N/A		Mgr. Only	343
1		S-61L	2,707	N/A		Mgr. Only	280

Below this line, Type 2 performance may be better than Type 1; consider ordering Type 2.

1		S-61N	1,899	N/A		Mgr. Only	183
1		H-43	1,173	N/A		Mgr. Only	121
2		B-214-B	2,630	13	Manager & 3	Mgr. Only	296
2	Super 205	B-205-A-1++	2,196	9	Manager & 3	Mgr. Only	244
2		B-UH-IH-703	2,196	N/A		Mgr. Only	244
2		B-212-HP	1,743	8	Manager & 3	Mgr. Only	189
2		B-UH-1H-CB	1307	N/A		Mgr. Only	137
2		B-212	1,304	6	Manager & 3	Mgr. Only	136
2		B-U/TH-1L/-IK	1,208	N/A		Mgr. Only	126
2		B-UH-1F	1207	N/A		Mgr. Only	126
2		B-412-EP-9	1,070	5	Manager & 3	Mgr. Only	108
2		B-205-A-1+	957	4	Manager & 3	Mgr. Only	95

Below this line, Type 3 performance may be better than Type 2; consider ordering Type 3.

2		B-UH-1B-13	825	N/A		Mgr. Only	80
2		B-UH-1B	825	N/A		Mgr. Only	80
2		B-412	803	4	Manager & 3	Mgr. Only	76
2		S-58-T	650	3	Manager & 3	Mgr. Only	57
2		B-205-A-1	599	2	Manager & 3	Mgr. Only	52
2		S-58-E	473	2	Manager & 3	Mgr. Only	38
2		B-UH-1H	0	N/A		Mgr. Only	-
2		B-204-B	0	N/A	Manager & 3	Mgr. Only	-
3	Lama	SA-315B	1300	4	Manager & 2	Mgr. Only	135
3		BH-407	977	4	Manager & 2	Mgr. Only	101
3		BH 206L4	875	4	Manager & 2	Mgr. Only	96
3	Alouette III	SA 316 B	825	4	Manager & 2	Mgr. Only	91
3	Long Ranger	B-206-L3	777	3	Manager & 2	Mgr. Only	84
3	Astar B2	AS 350 B2	641	3	Manager & 2	Mgr. Only	68
3	Jet Ranger	Bell 206-III	380	2	Manager & 2	Mgr. Only	35
3	Astar	AS-350-BA	350	2	Manager & 2	Mgr. Only	35

## 1 AIRCRAFT CAPABILITIES (Cont.)

2

## SMALL TRANSPORTS

Make	Model	Common Name	Pax	Max Load	Runway Length	Eng	MPH	KTS	Rang e	Fuel Gal.	Fuel Type
Beech	A-36	Bonanza	5	950	2,000	S	200	175	-	-	Avgas
Beech	BE-35	Bonanza	5	950	2,000	S	200	175	-	-	Avgas
Beech	BE-55	Baron	4-5	950	3,000	T	230	200	950	136	Avgas
Beech	BE-58	Baron	4-5	1,050	3,000	T	275	240	-	-	Avgas
Beech	BE-80	Queen Air	5-7	2,025	2,600	T	225	195	750	-	Avgas
Beech	BE-90	King Air	4-9	3,700	2,200	T	220	190	850	-	Jet
Beech	CE-500	Citation	6	2,500	4,500	T	350	295	850	-	Jet
Casa	212	Aviocar	19	4,400	4,500	T	220	190	900	520	Jet
Cessna	172	Skyhawk	3	900	1,500	S	120	105	-	-	Avgas
Cessna	180	Skywagon	5	800	1,500	S	160	140	-	-	Avgas
Cessna	182	Skylane	3	920	1,400	S	170	150	500	-	Avgas
Cessna	182R	Skylane	3	1,150	1,400	S	130	115	500	-	Avgas
Cessna	182RG	Skylane	3	1,100	1,400	S	140	120	500	-	Avgas
Cessna	206	Stationair	5	1,175	1,500	S	135	120	800	63	Avgas
Cessna	206-T	Stationair	5	1,100	-	S	170	150	-	-	Jet
Cessna	207	Stationair	6	1,400	1,900	S	160	140	800	58	Avgas
Cessna	208	Caravan	7	1,100	1,900	S	180	155	800	58	Avgas
Cessna	210	Centurion	4-5	950	2,500	S	190	165	900	87	Avgas
Cessna	210-T	Centurion	4-5	1,525	2,500	S	190	165	-	-	Jet
Cessna	303	Crusader	5	-	-	T	180	155	750	-	Avgas
Cessna	310	-	4-5	1,300	1,800	T	220	190	700	-	Avgas
Cessna	310-T	-	4-5	-	-	T	220	190	-	-	Jet
Cessna	335	-	4	-	-	T	200	170	-	-	Avgas
Cessna	337	-	5	1,080	-	T	225	195	-	-	Avgas
Cessna	340	-	5	1,000	2,250	T	260	225	750	-	Avgas
Cessna	401	-	6	-	-	T	205	180	-	-	Avgas
Cessna	402	-	5-7	1,120	-	T	220	190	850	-	Avgas
Cessna	414	Chancellor	7	900	3,000	T	220	190	750	-	Avgas
Cessna	421	Gold Eagle	5-7	1,300	3,000	T	270	235	750	-	Avgas
Cessna	425	Conquest	6	2,160	-	T	250	215	-	-	Jet
Cessna	441	Conquest	7	3,300	-	T	335	290	1,000	-	Jet
De Hav	DHC6-2	Tw Otter	17	3,000	1,500	T	200	170	600	381	Jet
De Hav	DHC6-3	Tw Otter	19	3,200	1,500	T	210	180	675	381	Jet
Lear	LR-24	-	6	-	4,000	T	510	435	1,100	840	Jet
Lear	LR-25	Century III	8	-	4,500	T	510	435	950	-	Jet
Lear	LR-35	Century III	8	4,200	4,500	T	510	435	950	-	Jet
Piper	PA-31	Navajo	7	1,250	2,700	T	260	225	750	182	Avgas
Piper	PA-31	Chiefton	6-9	1,800	3,000	T	220	190	-	-	Avgas
Piper	PA-31	Cheyenne	7	1,450	3,000	T	250	215	-	-	Avgas
Piper	PA-32	Saratoga	6-7	1,400	-	T	175	150	-	-	Avgas
Piper	PA-34	Seneca	5	1,135	-		230	200	500	-	Avgas
Piper	PA-34-T	-	6-7	1,700	-	T	230	200	-	-	Jet
Rockwell	690	-	5	1,150	3,000	T	190	165	800	156	Avgas
Rockwell	695	-	6-7	2,500	-	T	320	270	-	-	Jet
Shorts	C-23	Sherpa	22	-	-	T	230	200	-	-	Jet

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## 1 AIRCRAFT CAPABILITIES (Cont.)

## 2 LARGE TRANSPORTS

Make	Model	Pax	Max Load	Runway Length	Eng	MPH	KTS	Range	Fuel Gal.	Fuel Type
Bandeirante	EMB-a110	11	3,000	2,800	2	260	225	1,100	455	Jet
Boeing	727	128	-	7,000	3	500	430	3.5 hr	-	Jet
Boeing	737	100	-	7,000	2	500	430	3.5 hr	-	
De Havilland	Dash-7	50	11,000	2,250	4	150	130	700	1,400	Jet
De Havilland	Dash-8	36	7,000	3,000	4	150	130	700	835	Jet
Douglas	DC-3	20	8,720	5,500	2	190	160	1,700	-	Avgas
Hercules	C-130	92	43,800	4,000	4	300	300	2,000	2,750	Jet

## 7 AIR TANKERS

Make	Model	Gates	Max Load	Runway Length	Eng	MPH	KTS	Range	Fuel Gal.	Fuel Type
Douglas	DC-4	-	2,000	-	4	250	220	-	-	Avgas
Douglas	DC-6	6-8	2,500	5,000	4	235	200	1,340	2,345	Avgas
Douglas	DC-7	6-8	3,000	5,000	4	235	200	950	4,735	Avgas
Dromader	M-18	1	450	1,500	1	135	120	250	150	Avgas
Lockheed	C-130	-	3,000	-	4	270	230	-	-	-
Lockheed	MAFFS	-	3,000	-	4	270	230	-	-	-
Lockheed	P-3A	8	3,000	-	4	-	-	-	-	-
Strato	KC-97	16	4,000	5,000	4	255	220	1,500	9,000	Avgas
Neptune	P2V	6	2,450	5,000	2/2	250	215	915	3,010	Avgas
Privatier	PB4Y-2	6-8	2,200	4,500	4	220	190	525	2,344	Avgas

## TIME CONVERSION TABLES

## STANDARD TIME

ZULU	ALASKAN	PACIFIC	MOUNTAIN	CENTRAL	EASTERN
0000	1400	1600	1700	1800	1900
0100	1500	1700	1800	1900	2001
0200	1600	1800	1900	2001	2100
0300	1700	1900	2001	2100	2200
0400	1800	2001	2100	2200	2300
0500	1900	2100	2200	2300	0000
0600	2001	2200	2300	0000	0100
0700	2100	2300	0000	0100	0100
0800	2200	0000	0100	0200	0300
0900	2300	0100	0200	0300	0400
1000	0000	0200	0300	0400	0500
1100	0100	0300	0400	0500	0600
1200	0200	0400	0500	0600	0700
1300	0300	0500	0600	0700	0800
1400	0400	0600	0700	0800	0900
1500	0500	0700	0800	0900	1000
1600	0600	0800	0900	1000	1100
1700	0700	0900	1000	1100	1200
1800	0800	1000	1100	1200	1300
1900	0900	1100	1200	1300	1400
2001	1000	1200	1300	1400	1500
2100	1100	1300	1400	1500	1600
2200	1200	1400	1500	1600	1700
2300	1300	1500	1600	1700	1800

## DAYLIGHT SAVING TIME

ZULU	ALASKAN	PACIFIC	MOUNTAIN	CENTRAL	EASTERN
0000	1500	1700	1800	1900	2001
0100	1600	1800	1900	2001	2100
0200	1700	1900	2001	2100	2200
0300	1800	2001	2100	2200	2300
0400	1900	2100	2200	2300	0000
0500	2001	2200	2300	0000	0100
0600	2100	2300	0000	0100	0200
0700	2200	0000	0100	0200	0300
0800	2300	0100	0200	0300	0400
0900	0000	0200	0300	0400	0500
1000	0100	0300	0400	0500	0600
1100	0200	0400	0500	0600	0700
1200	0300	0500	0600	0700	0800
1300	0400	0600	0700	0800	0900
1400	0500	0700	0800	0900	1000
1500	0600	0800	0900	1000	1100
1600	0700	0900	1000	1100	1200
1700	0800	1000	1100	1200	1300
1800	0900	1100	1200	1300	1400
1900	1000	1200	1300	1400	1500
2001	1100	1300	1400	1500	1600
2100	1200	1400	1500	1600	1700
2200	1300	1500	1600	1700	1800
2300	1400	1600	1700	1800	1900

**DURANGO, COLORADO**  
**Rise and Set for the Sun for 2011**  
**Mountain Standard Time**  
 (Add 1 hr for Daylight savings time)

	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.		
Date	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set															
	h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m	
01	0726	1705	0715	1736	0643	1805	0557	1834	0517	1901	0453	1926	0455	1936	0516	1919	0542	1841	0607	1755	0636	1714	0707	1654	
02	0726	1705	0714	1737	0642	1806	0556	1835	0516	1902	0452	1927	0455	1936	0517	1918	0543	1839	0608	1753	0637	1713	0708	1654	
03	0726	1706	0713	1738	0640	1807	0554	1836	0515	1903	0452	1928	0456	1936	0518	1917	0544	1838	0608	1752	0638	1712	0708	1654	
04	0726	1707	0712	1739	0639	1808	0553	1837	0514	1904	0452	1928	0456	1936	0518	1916	0544	1836	0609	1751	0639	1711	0709	1654	
05	0726	1708	0711	1740	0637	1809	0552	1838	0512	1904	0452	1929	0457	1935	0519	1915	0545	1835	0610	1749	0640	1710	0710	1654	
06	0726	1709	0710	1741	0636	1810	0550	1838	0511	1905	0451	1929	0457	1935	0520	1914	0546	1833	0611	1748	0641	1709	0711	1654	
07	0726	1710	0709	1742	0634	1811	0549	1839	0510	1906	0451	1930	0458	1935	0521	1913	0547	1832	0612	1746	0642	1708	0712	1654	
08	0726	1711	0708	1744	0633	1812	0547	1840	0509	1907	0451	1930	0458	1935	0522	1912	0548	1830	0613	1745	0643	1707	0713	1654	
09	0726	1712	0707	1745	0632	1813	0546	1841	0508	1908	0451	1931	0459	1934	0523	1911	0548	1829	0614	1743	0644	1706	0714	1654	
10	0726	1713	0706	1746	0630	1814	0544	1842	0507	1909	0451	1931	0500	1934	0523	1910	0549	1827	0615	1742	0645	1705	0714	1654	
11	0726	1714	0705	1747	0629	1815	0543	1843	0507	1910	0451	1932	0500	1934	0524	1909	0550	1826	0616	1740	0646	1704	0715	1654	
12	0725	1715	0704	1748	0627	1816	0541	1844	0506	1911	0451	1932	0501	1933	0525	1907	0551	1824	0616	1739	0647	1704	0716	1654	
13	0725	1716	0703	1749	0626	1817	0540	1845	0505	1911	0450	1933	0501	1933	0526	1906	0552	1822	0617	1738	0648	1703	0717	1654	
14	0725	1717	0702	1750	0624	1818	0539	1846	0504	1912	0450	1933	0502	1932	0527	1905	0553	1821	0618	1736	0649	1702	0717	1655	
15	0725	1718	0701	1751	0623	1819	0537	1846	0503	1913	0451	1934	0503	1932	0528	1904	0553	1819	0619	1735	0650	1701	0718	1655	
16	0724	1719	0700	1752	0621	1820	0536	1847	0502	1914	0451	1934	0504	1931	0529	1902	0554	1818	0620	1733	0652	1701	0719	1655	
17	0724	1720	0658	1753	0620	1820	0535	1848	0501	1915	0451	1934	0504	1931	0529	1901	0555	1816	0621	1732	0653	1700	0719	1656	
18	0723	1721	0657	1754	0618	1821	0533	1849	0501	1916	0451	1935	0505	1930	0530	1900	0556	1815	0622	1731	0654	1659	0720	1656	
19	0723	1722	0656	1755	0617	1822	0532	1850	0500	1917	0451	1935	0506	1930	0531	1859	0557	1813	0623	1729	0655	1659	0721	1656	
20	0723	1723	0655	1756	0615	1823	0530	1851	0459	1917	0451	1935	0506	1929	0532	1857	0557	1812	0624	1728	0656	1658	0721	1657	
21	0722	1724	0653	1757	0614	1824	0529	1852	0458	1918	0451	1935	0507	1928	0533	1856	0558	1810	0625	1727	0657	1658	0722	1657	
22	0722	1725	0652	1758	0612	1825	0528	1853	0458	1919	0452	1935	0508	1928	0534	1855	0559	1809	0626	1726	0658	1657	0722	1658	
23	0721	1726	0651	1759	0611	1826	0527	1854	0457	1920	0452	1936	0509	1927	0534	1853	0600	1807	0627	1724	0659	1657	0723	1658	
24	0720	1727	0650	1800	0609	1827	0525	1855	0457	1920	0452	1936	0509	1926	0535	1852	0601	1806	0628	1723	0700	1656	0723	1659	
25	0720	1728	0648	1801	0608	1828	0524	1855	0456	1921	0452	1936	0510	1925	0536	1851	0602	1804	0629	1722	0701	1656	0724	1700	
26	0719	1729	0647	1802	0606	1829	0523	1856	0455	1922	0453	1936	0511	1925	0537	1849	0602	1803	0630	1721	0702	1655	0724	1700	
27	0718	1730	0646	1803	0605	1829	0522	1857	0455	1923	0453	1936	0512	1924	0538	1848	0603	1801	0631	1719	0703	1655	0724	1701	
28	0718	1731	0644	1804	0603	1830	0520	1858	0454	1923	0453	1936	0513	1923	0539	1846	0604	1800	0632	1718	0704	1655	0725	1702	
29	0717	1733			0602	1831	0519	1859	0454	1924	0454	1936	0513	1922	0539	1845	0605	1758	0633	1717	0705	1655	0725	1702	
30	0716	1734			0600	1832	0518	1900	0454	1925	0454	1936	0514	1921	0540	1843	0606	1756	0634	1716	0706	1654	0725	1703	
31	0715	1735			0559	1833			0453	1926			0515	1920	0541	1842			0635	1715				0725	1704

Add one hour for daylight time, if and when in use. \*Civil twilight is 30 before official sun rise and 30 minutes after official sun set

**GRAND JUNCTION, COLORADO**  
**Rise and Set for the Sun for 2011**  
**Mountain Standard Time**  
 (Add 1 hr for Daylight savings time)

	<b>Jan.</b>	<b>Feb.</b>	<b>Mar.</b>	<b>Apr.</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug.</b>	<b>Sept.</b>	<b>Oct.</b>	<b>Nov.</b>	<b>Dec.</b>												
	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set												
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m												
01	0733	1702	0721	1735	0647	1807	0559	1838	0516	1907	0450	1934	0452	1944	0515	1926	0543	1845	0610	1757	0642	1714	0714	1652
02	0733	1703	0720	1736	0646	1808	0558	1839	0515	1908	0450	1935	0452	1944	0516	1925	0544	1843	0611	1756	0643	1712	0715	1652
03	0734	1704	0719	1737	0644	1809	0556	1840	0514	1909	0450	1935	0453	1944	0516	1924	0545	1842	0612	1754	0644	1711	0716	1652
04	0734	1705	0718	1739	0643	1810	0554	1841	0513	1910	0449	1936	0454	1944	0517	1923	0546	1840	0613	1752	0645	1710	0717	1652
05	0734	1706	0717	1740	0641	1811	0553	1842	0512	1911	0449	1937	0454	1943	0518	1922	0546	1839	0614	1751	0646	1709	0718	1652
06	0734	1707	0716	1741	0640	1812	0551	1843	0511	1912	0449	1937	0455	1943	0519	1920	0547	1837	0615	1749	0647	1708	0719	1651
07	0734	1708	0715	1742	0638	1813	0550	1844	0509	1913	0449	1938	0455	1943	0520	1919	0548	1836	0616	1748	0648	1707	0720	1651
08	0733	1709	0714	1743	0637	1814	0548	1845	0508	1914	0448	1938	0456	1943	0521	1918	0549	1834	0617	1746	0649	1706	0721	1651
09	0733	1710	0713	1744	0635	1815	0547	1846	0507	1915	0448	1939	0456	1942	0522	1917	0550	1832	0618	1745	0650	1705	0721	1652
10	0733	1711	0712	1746	0634	1816	0545	1846	0506	1916	0448	1940	0457	1942	0523	1916	0551	1831	0619	1743	0651	1704	0722	1652
11	0733	1712	0711	1747	0632	1817	0544	1847	0505	1916	0448	1940	0458	1941	0524	1915	0552	1829	0620	1742	0653	1703	0723	1652
12	0733	1713	0710	1748	0631	1818	0542	1848	0504	1917	0448	1940	0458	1941	0525	1913	0553	1828	0621	1740	0654	1703	0724	1652
13	0732	1714	0708	1749	0629	1819	0541	1849	0503	1918	0448	1941	0459	1940	0525	1912	0554	1826	0622	1739	0655	1702	0725	1652
14	0732	1715	0707	1750	0627	1820	0539	1850	0502	1919	0448	1941	0500	1940	0526	1911	0554	1824	0623	1737	0656	1701	0725	1652
15	0732	1716	0706	1751	0626	1821	0538	1851	0501	1920	0448	1942	0501	1939	0527	1909	0555	1823	0624	1736	0657	1700	0726	1653
16	0731	1717	0705	1752	0624	1822	0536	1852	0501	1921	0448	1942	0501	1939	0528	1908	0556	1821	0625	1734	0658	1659	0727	1653
17	0731	1718	0703	1754	0623	1823	0535	1853	0500	1922	0448	1942	0502	1938	0529	1907	0557	1820	0626	1733	0659	1659	0727	1653
18	0731	1719	0702	1755	0621	1824	0534	1854	0459	1923	0448	1943	0503	1938	0530	1905	0558	1818	0627	1732	0700	1658	0728	1654
19	0730	1720	0701	1756	0620	1825	0532	1855	0458	1924	0448	1943	0504	1937	0531	1904	0559	1816	0628	1730	0701	1657	0728	1654
20	0730	1721	0700	1757	0618	1826	0531	1856	0457	1925	0448	1943	0504	1936	0532	1903	0600	1815	0629	1729	0703	1657	0729	1654
21	0729	1722	0658	1758	0616	1827	0529	1857	0457	1925	0449	1943	0505	1936	0533	1901	0601	1813	0630	1727	0704	1656	0730	1655
22	0728	1723	0657	1759	0615	1828	0528	1858	0456	1926	0449	1944	0506	1935	0534	1900	0602	1812	0631	1726	0705	1656	0730	1655
23	0728	1725	0656	1800	0613	1829	0527	1859	0455	1927	0449	1944	0507	1934	0535	1858	0603	1810	0632	1725	0706	1655	0731	1656
24	0727	1726	0654	1801	0612	1830	0525	1900	0455	1928	0449	1944	0508	1933	0536	1857	0604	1808	0633	1723	0707	1655	0731	1657
25	0726	1727	0653	1802	0610	1831	0524	1901	0454	1929	0450	1944	0509	1932	0536	1856	0604	1807	0634	1722	0708	1654	0731	1657
26	0726	1728	0651	1803	0609	1832	0523	1902	0453	1930	0450	1944	0509	1932	0537	1854	0605	1805	0635	1721	0709	1654	0732	1658
27	0725	1729	0650	1804	0607	1833	0521	1903	0453	1930	0450	1944	0510	1931	0538	1853	0606	1803	0636	1720	0710	1653	0732	1658
28	0724	1730	0649	1806	0605	1834	0520	1904	0452	1931	0451	1944	0511	1930	0539	1851	0607	1802	0637	1718	0711	1653	0732	1659
29	0723	1732			0604	1835	0519	1905	0452	1932	0451	1944	0512	1929	0540	1850	0608	1800	0638	1717	0712	1653	0733	1700
30	0723	1733			0602	1836	0518	1906	0451	1933	0452	1944	0513	1928	0541	1848	0609	1759	0639	1716	0713	1652	0733	1701
31	0722	1734			0601	1837			0451	1933			0514	1927	0542	1847			0640	1715			0733	1701

Add one hour for daylight time, if and when in use.

\* Civil twilight is 30 before official sun rise and 30 minutes after official sun set

**CORTEZ COLORADO**  
**Rise and Set for the Sun for 2011**  
 (Add 1 hr for Daylight savings time)  
**Mountain Standard Time**

	<b>Jan.</b>	<b>Feb.</b>	<b>Mar.</b>	<b>Apr.</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug.</b>	<b>Sept.</b>	<b>Oct.</b>	<b>Nov.</b>	<b>Dec.</b>												
<b>Day</b>	<b>Rise</b>	<b>Set</b>	<b>Rise</b>	<b>Set</b>	<b>Rise</b>	<b>Set</b>	<b>Rise</b>	<b>Set</b>	<b>Rise</b>	<b>Set</b>	<b>Rise</b>	<b>Set</b>												
	<b>h m</b>	<b>h m</b>	<b>h m</b>	<b>h m</b>																				
01	0729	1707	0718	1739	0646	1808	0600	1837	0520	1904	0455	1929	0457	1939	0519	1922	0545	1843	0610	1758	0639	1717	0710	1657
02	0729	1708	0717	1740	0644	1809	0559	1838	0518	1905	0455	1930	0458	1939	0519	1921	0545	1842	0610	1756	0640	1715	0711	1657
03	0729	1709	0716	1741	0643	1810	0557	1839	0517	1906	0455	1931	0458	1939	0520	1920	0546	1840	0611	1755	0641	1714	0711	1657
04	0729	1710	0715	1742	0642	1811	0556	1839	0516	1906	0454	1931	0459	1939	0521	1919	0547	1839	0612	1753	0642	1713	0712	1656
05	0729	1711	0714	1743	0640	1812	0554	1840	0515	1907	0454	1932	0459	1938	0522	1918	0548	1837	0613	1752	0643	1712	0713	1656
06	0729	1711	0713	1744	0639	1813	0553	1841	0514	1908	0454	1932	0500	1938	0523	1917	0549	1836	0614	1750	0644	1711	0714	1656
07	0729	1712	0712	1745	0637	1814	0551	1842	0513	1909	0454	1933	0500	1938	0524	1916	0550	1834	0615	1749	0645	1711	0715	1656
08	0729	1713	0711	1746	0636	1815	0550	1843	0512	1910	0454	1933	0501	1938	0524	1915	0550	1833	0616	1747	0646	1710	0716	1656
09	0729	1714	0710	1747	0634	1816	0548	1844	0511	1911	0453	1934	0502	1937	0525	1914	0551	1831	0617	1746	0647	1709	0717	1656
10	0729	1715	0709	1748	0633	1817	0547	1845	0510	1912	0453	1934	0502	1937	0526	1913	0552	1830	0617	1745	0648	1708	0717	1657
11	0728	1716	0708	1749	0632	1818	0546	1846	0509	1913	0453	1935	0503	1937	0527	1911	0553	1828	0618	1743	0649	1707	0718	1657
12	0728	1717	0707	1751	0630	1819	0544	1847	0508	1914	0453	1935	0503	1936	0528	1910	0554	1827	0619	1742	0650	1706	0719	1657
13	0728	1718	0706	1752	0629	1820	0543	1848	0507	1914	0453	1936	0504	1936	0529	1909	0554	1825	0620	1740	0651	1705	0720	1657
14	0728	1719	0705	1753	0627	1820	0541	1848	0506	1915	0453	1936	0505	1935	0530	1908	0555	1824	0621	1739	0652	1705	0720	1657
15	0727	1720	0704	1754	0626	1821	0540	1849	0506	1916	0453	1937	0505	1935	0530	1907	0556	1822	0622	1738	0653	1704	0721	1658
16	0727	1721	0702	1755	0624	1822	0539	1850	0505	1917	0453	1937	0506	1934	0531	1905	0557	1821	0623	1736	0654	1703	0722	1658
17	0727	1722	0701	1756	0623	1823	0537	1851	0504	1918	0453	1937	0507	1934	0532	1904	0558	1819	0624	1735	0655	1703	0722	1658
18	0726	1723	0700	1757	0621	1824	0536	1852	0503	1919	0453	1938	0508	1933	0533	1903	0559	1818	0625	1733	0657	1702	0723	1659
19	0726	1724	0659	1758	0620	1825	0535	1853	0503	1919	0454	1938	0508	1932	0534	1901	0559	1816	0626	1732	0658	1701	0724	1659
20	0726	1725	0658	1759	0618	1826	0533	1854	0502	1920	0454	1938	0509	1932	0535	1900	0600	1815	0627	1731	0659	1701	0724	1700
21	0725	1726	0656	1800	0617	1827	0532	1855	0501	1921	0454	1938	0510	1931	0535	1859	0601	1813	0628	1730	0700	1700	0725	1700
22	0724	1728	0655	1801	0615	1828	0531	1856	0500	1922	0454	1938	0511	1930	0536	1857	0602	1811	0629	1728	0701	1700	0725	1701
23	0724	1729	0654	1802	0614	1829	0529	1857	0500	1923	0454	1939	0511	1930	0537	1856	0603	1810	0630	1727	0702	1659	0726	1701
24	0723	1730	0652	1803	0612	1830	0528	1857	0459	1923	0455	1939	0512	1929	0538	1855	0604	1808	0631	1726	0703	1659	0726	1702
25	0723	1731	0651	1804	0611	1831	0527	1858	0459	1924	0455	1939	0513	1928	0539	1853	0604	1807	0632	1725	0704	1658	0727	1702
26	0722	1732	0650	1805	0609	1831	0526	1859	0458	1925	0455	1939	0514	1927	0540	1852	0605	1805	0633	1723	0705	1658	0727	1703
27	0721	1733	0648	1806	0608	1832	0524	1900	0458	1926	0456	1939	0514	1927	0540	1851	0606	1804	0634	1722	0706	1658	0727	1703
28	0721	1734	0647	1807	0606	1833	0523	1901	0457	1926	0456	1939	0515	1926	0541	1849	0607	1802	0635	1721	0707	1657	0728	1704
29	0720	1735			0605	1834	0522	1902	0457	1927	0456	1939	0516	1925	0542	1848	0608	1801	0636	1720	0708	1657	0728	1705
30	0719	1736			0603	1835	0521	1903	0456	1928	0457	1939	0517	1924	0543	1846	0609	1759	0637	1719	0709	1657	0728	1706
31	0718	1737			0602	1836			0456	1929			0518	1923	0544	1845			0638	1718			0728	1706

Add one hour for daylight time, if and when in use.

\* Civil twilight is 30 before official sun rise and 30 minutes after official sun set

**PAGOSA SPRINGS, COLORADO**  
**Rise and Set for the Sun for 2011**  
**Mountain Standard Time**  
 (Add 1 hr for Daylight savings time)

	<b>Jan.</b>	<b>Feb.</b>	<b>Mar.</b>	<b>Apr.</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug.</b>	<b>Sept.</b>	<b>Oct.</b>	<b>Nov.</b>	<b>Dec.</b>			
Day	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	
01	0722	1701	0711	1732	0639	1802	0554	1830	0514	1857	0449	1923	0451	1932	
02	0722	1702	0710	1734	0638	1803	0553	1831	0512	1858	0449	1923	0452	1932	
03	0722	1703	0709	1735	0637	1804	0551	1832	0511	1859	0449	1924	0452	1932	
04	0722	1704	0709	1736	0635	1805	0550	1833	0510	1900	0448	1925	0453	1932	
05	0722	1705	0708	1737	0634	1806	0548	1834	0509	1901	0448	1925	0453	1932	
06	0722	1705	0707	1738	0632	1807	0547	1835	0508	1902	0448	1926	0454	1932	
07	0722	1706	0706	1739	0631	1808	0545	1836	0507	1903	0448	1926	0454	1931	
08	0722	1707	0705	1740	0630	1809	0544	1837	0506	1904	0448	1927	0455	1931	
09	0722	1708	0704	1741	0628	1810	0542	1838	0505	1904	0447	1927	0456	1931	
10	0722	1709	0703	1742	0627	1811	0541	1839	0504	1905	0447	1928	0456	1930	
11	0722	1710	0702	1743	0625	1811	0539	1839	0503	1906	0447	1928	0457	1930	
12	0722	1711	0701	1744	0624	1812	0538	1840	0502	1907	0447	1929	0457	1930	
13	0722	1712	0659	1746	0622	1813	0537	1841	0501	1908	0447	1929	0458	1929	
14	0721	1713	0658	1747	0621	1814	0535	1842	0500	1909	0447	1930	0459	1929	
15	0721	1714	0657	1748	0619	1815	0534	1843	0500	1910	0447	1930	0459	1928	
16	0721	1715	0656	1749	0618	1816	0532	1844	0459	1911	0447	1930	0500	1928	
17	0720	1716	0655	1750	0616	1817	0531	1845	0458	1911	0447	1931	0501	1927	
18	0720	1717	0654	1751	0615	1818	0530	1846	0457	1912	0447	1931	0502	1927	
19	0720	1718	0652	1752	0613	1819	0528	1847	0457	1913	0448	1931	0502	1926	
20	0719	1719	0651	1753	0612	1820	0527	1847	0456	1914	0448	1932	0503	1925	
21	0719	1720	0650	1754	0610	1821	0526	1848	0455	1915	0448	1932	0504	1925	
22	0718	1722	0649	1755	0609	1822	0524	1849	0454	1915	0448	1932	0505	1924	
23	0717	1723	0647	1756	0607	1822	0523	1850	0454	1916	0448	1932	0505	1923	
24	0717	1724	0646	1757	0606	1823	0522	1851	0453	1917	0449	1932	0506	1923	
25	0716	1725	0645	1758	0604	1824	0521	1852	0453	1918	0449	1932	0507	1922	
26	0716	1726	0643	1759	0603	1825	0519	1853	0452	1918	0449	1932	0508	1921	
27	0715	1727	0642	1800	0601	1826	0518	1854	0452	1919	0450	1932	0508	1920	
28	0714	1728	0641	1801	0600	1827	0517	1855	0451	1920	0450	1932	0509	1919	
29	0714	1729			0558	1828	0516	1856	0451	1921	0450	1932	0510	1918	
30	0713	1730			0557	1829	0515	1856	0450	1921	0451	1932	0511	1918	
31	0712	1731			0555	1830			0450	1922			0512	1917	
									0538	1839			0631	1711	
														0722	1700

Add one hour for daylight time, if and when in use.

\* Civil twilight is 30 before official sun rise and 30 minutes after official sun se

**ALBUQUERQUE, NM**  
**Rise and Set for the Sun for 2011**  
**Mountain Standard Time**  
(Add 1 hr for Daylight savings time)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.												
	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set												
01	0715	1705	0705	1735	0636	1802	0553	1828	0516	1852	0453	1915	0456	1925	0515	1909	0539	1833	0601	1751	0627	1712	0656	1655
02	0715	1706	0705	1736	0635	1803	0552	1828	0515	1853	0453	1916	0456	1925	0516	1909	0540	1832	0602	1749	0628	1711	0657	1654
03	0715	1707	0704	1737	0634	1804	0551	1829	0514	1854	0453	1916	0457	1924	0517	1908	0540	1831	0603	1748	0629	1710	0658	1654
04	0715	1708	0703	1738	0632	1804	0549	1830	0513	1854	0453	1917	0457	1924	0518	1907	0541	1829	0603	1746	0630	1709	0659	1654
05	0715	1709	0702	1739	0631	1805	0548	1831	0512	1855	0452	1918	0458	1924	0518	1906	0542	1828	0604	1745	0631	1708	0700	1654
06	0715	1709	0701	1740	0630	1806	0547	1832	0511	1856	0452	1918	0458	1924	0519	1905	0543	1826	0605	1744	0632	1707	0700	1654
07	0715	1710	0701	1741	0628	1807	0545	1832	0510	1857	0452	1919	0459	1924	0520	1904	0543	1825	0606	1742	0633	1707	0701	1654
08	0715	1711	0700	1742	0627	1808	0544	1833	0509	1858	0452	1919	0459	1923	0521	1903	0544	1824	0606	1741	0634	1706	0702	1654
09	0715	1712	0659	1743	0626	1809	0543	1834	0508	1858	0452	1920	0500	1923	0522	1902	0545	1822	0607	1739	0635	1705	0703	1654
10	0715	1713	0658	1744	0624	1810	0541	1835	0507	1859	0452	1920	0500	1923	0522	1901	0545	1821	0608	1738	0636	1704	0704	1655
11	0715	1714	0657	1745	0623	1810	0540	1836	0506	1900	0452	1921	0501	1923	0523	1900	0546	1819	0609	1737	0637	1703	0704	1655
12	0715	1715	0656	1746	0621	1811	0539	1836	0505	1901	0452	1921	0502	1922	0524	1858	0547	1818	0610	1735	0638	1703	0705	1655
13	0715	1716	0655	1747	0620	1812	0537	1837	0504	1902	0452	1921	0502	1922	0525	1857	0548	1816	0611	1734	0639	1702	0706	1655
14	0714	1717	0654	1748	0619	1813	0536	1838	0504	1902	0452	1922	0503	1921	0525	1856	0548	1815	0611	1733	0640	1701	0706	1656
15	0714	1718	0653	1749	0617	1814	0535	1839	0503	1903	0452	1922	0503	1921	0526	1855	0549	1814	0612	1732	0641	1701	0707	1656
16	0714	1719	0652	1750	0616	1815	0533	1840	0502	1904	0452	1922	0504	1921	0527	1854	0550	1812	0613	1730	0642	1700	0708	1656
17	0714	1720	0650	1751	0615	1815	0532	1840	0501	1905	0452	1923	0505	1920	0528	1853	0551	1811	0614	1729	0643	1700	0708	1656
18	0713	1721	0649	1752	0613	1816	0531	1841	0501	1905	0452	1923	0505	1919	0528	1852	0551	1809	0615	1728	0644	1659	0709	1657
19	0713	1722	0648	1753	0612	1817	0530	1842	0500	1906	0452	1923	0506	1919	0529	1850	0552	1808	0616	1727	0645	1658	0710	1657
20	0712	1723	0647	1754	0610	1818	0528	1843	0459	1907	0452	1924	0507	1918	0530	1849	0553	1806	0616	1725	0646	1658	0710	1658
21	0712	1724	0646	1755	0609	1819	0527	1844	0459	1908	0453	1924	0507	1918	0531	1848	0553	1805	0617	1724	0647	1657	0711	1658
22	0712	1725	0645	1755	0608	1820	0526	1845	0458	1908	0453	1924	0508	1917	0531	1847	0554	1803	0618	1723	0648	1657	0711	1659
23	0711	1726	0644	1756	0606	1820	0525	1845	0457	1909	0453	1924	0509	1916	0532	1845	0555	1802	0619	1722	0649	1657	0712	1659
24	0711	1727	0642	1757	0605	1821	0523	1846	0457	1910	0453	1924	0510	1916	0533	1844	0556	1801	0620	1721	0650	1656	0712	1700
25	0710	1728	0641	1758	0603	1822	0522	1847	0456	1911	0454	1924	0510	1915	0534	1843	0556	1759	0621	1720	0651	1656	0712	1700
26	0709	1729	0640	1759	0602	1823	0521	1848	0456	1911	0454	1925	0511	1914	0534	1841	0557	1758	0622	1718	0651	1656	0713	1701
27	0709	1730	0639	1800	0600	1824	0520	1849	0455	1912	0454	1925	0512	1914	0535	1840	0558	1756	0623	1717	0652	1655	0713	1702
28	0708	1731	0637	1801	0559	1824	0519	1849	0455	1913	0455	1925	0512	1913	0536	1839	0559	1755	0624	1716	0653	1655	0714	1702
29	0708	1732			0558	1825	0518	1850	0455	1913	0455	1925	0513	1912	0537	1837	0559	1753	0625	1715	0654	1655	0714	1703
30	0707	1733			0556	1826	0517	1851	0454	1914	0455	1925	0514	1911	0537	1836	0600	1752	0625	1714	0655	1655	0714	1704
31	0706	1734			0555	1827			0454	1915			0515	1910	0538	1835			0626	1713			0714	1704

Add one hour for daylight time, if and when in use. \* Civil twilight is 30 before official sun rise and 30 minutes after official sun set

**FOUR CORNERS AREA**  
**AIRSPACE BOUNDARY MANAGEMENT PLAN**

**PARTICIPATING DISPATCH CENTERS:**

Durango Interagency Dispatch Center  
Taos Interagency Dispatch Center  
Moab Interagency Dispatch Center  
Flagstaff Interagency Dispatch Center  
Pueblo Interagency Dispatch Center  
Grand Junction Dispatch Center  
Montrose Dispatch Center

**I. PURPOSE**

Aerial operations on, or adjacent to, agency/cooperator boundaries and areas where a neighboring agency/cooperator provides fire suppression on lands administered by the adjoining agency/cooperator (“mutual aid”, “shared,” or “exchanged” initial attack areas or zones) require increased management and coordination. The requirement for increased management and coordination is due to the possibility of two or more agencies/cooperators conducting simultaneous, uncoordinated aviation operations within those areas that would unknowingly put the responding aerial resources within close proximity to one another, placing aircraft and crews at risk. The purpose of this plan is to identify such boundaries and initial attack zones and provides means of communication, coordination, and airspace deconfliction within those areas.

**II. GUIDELINES & PROCEDURES**

- A. An imaginary 10-mile-wide “neutral air” corridor will center on dispatch zone boundaries. The “neutral air” for mutual or exchanged initial attack areas or zones will encompass the whole zone.
- B. Any agency conducting aerial operations within a corridor or zone will immediately notify the adjoining agency/cooperator of such operations. This is accomplished to and from dispatch offices prior to the commencement of operations and when operations cease. Examples of aerial operations include recon, fire suppression missions, special aviation projects, resource management flights, forest health surveys, etc.
- C. Agency aircraft will establish contact on the assigned air-to-air frequency. If positive contact is not made, the default contact air-to-air frequency will be Air Guard 168.625. This frequency

will be designated for initial contact and coordination between converging aircraft within corridors and zones only when contact is not otherwise possible. This frequency is programmed as the default receive frequency in all agency and contract aircraft FM radios, and is intended for initial contact and emergency purposes only. Therefore, it is imperative that this frequency is not used for tactical or logistical purposes. When Air Guard is used to establish initial contact, aircraft are expected to switch to an alternate frequency (e.g., the local or incident air-to-air frequency, etc.) as soon as possible.

- D. When aircraft from two or more adjoining agencies/cooperators are being committed to the same general area of a corridor/zone:
  - 1. Depending on complexity, consider dispatching an Air Tactical Group Supervisor (ATGS).
  - 2. Approaching aircraft will establish air-to-air frequency contact prior to entering the area.
  - 3. Aircraft rely upon dispatch centers for current relevant information. Therefore, coordination between dispatch centers must occur prior to dispatch.
- E. When an aircraft is dispatched to an incident within a corridor/zone and no other aircraft are known to be present:
  - 1. The approaching aircraft will attempt to establish contact on the assigned frequency. If unsuccessful, Air Guard frequency 168.625 will be used.
  - 2. Perform a high-level recon prior to low-level operations.
  - 3. Practice “see and avoid.”
  - 4. The dispatch office initiating the flight will notify and coordinate with the adjoining agency/cooperator dispatch office.
- F. Temporary Flight Restrictions (TFRs) within or in close proximity to corridors/zones will be coordinated and information shared between the responsible dispatch offices.

**Aviation dispatchers are responsible for assuring that agency aircraft dispatched to initial or extended attack incidents leave their bases with accurate mission information. If aircraft are crossing or working within five (5) nautical miles on either side of jurisdictional boundaries, the following checklist should be completed by the on-duty aircraft dispatcher and faxed to affected neighboring centers by the aircraft dispatcher. Completed checklists should be kept with the incident and repeated daily until activity has ceased.**

## AVIATION BOUNDARY OPERATIONS CHECKLIST

1. Date: \_\_\_\_\_ Time: \_\_\_\_\_ Dispatcher: \_\_\_\_\_

2. Fire name and/or number: \_\_\_\_\_

3. Geographic Location: \_\_\_\_\_

Lat x Long: \_\_\_\_\_ X \_\_\_\_\_

VOR Bearing and Distance: \_\_\_\_\_

4. Aircraft responding: Tail # or Call sign Departure Point & Time

Air Attack \_\_\_\_\_

Lead Plane \_\_\_\_\_

Air Tankers \_\_\_\_\_

Helicopters \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Smokejumpers \_\_\_\_\_

5. Is there a TFR in Place or requested? \_\_\_\_\_ Yes \_\_\_\_\_ No

If yes, what are the parameters? Central Point \_\_\_\_\_ X \_\_\_\_\_  
Radius: \_\_\_\_\_ NM Altitude: \_\_\_\_\_ MSL

6. Radio Frequencies:

Flight Following: \_\_\_\_\_

Air to Air (VHF-AM): \_\_\_\_\_

Air to Ground (VHF-FM): \_\_\_\_\_

7. Are there Military Training Routes (MTRs) or Special Use Areas (SUAs) nearby? \_\_\_\_\_ Yes \_\_\_\_\_ No

If yes, what routes or SUAs? \_\_\_\_\_

Has the Scheduling Activity been notified? \_\_\_\_\_ Yes Have Flight Crews been notified? \_\_\_\_\_ Yes

8. Adjacent Jurisdiction Dispatch Centers: (fax this form to each)

Center: \_\_\_\_\_ Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Center: \_\_\_\_\_ Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Center: \_\_\_\_\_ Phone: \_\_\_\_\_ Fax: \_\_\_\_\_